

Applicant : Michael A. Porter et al.  
Serial No. : 10/764,275  
Filed : January 23, 2004  
Page : 2 of 7

Attorney's Docket No.: 10790-  
067008 / CGL01/207US08

### Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application:

#### Listing of Claims:

1. – 41. (Cancelled)
42. (New) A method for producing a modified oilseed material comprising:  
extracting oilseed material with an aqueous solution to form a suspension of  
particulate matter in an oilseed extract;  
passing the extract through a filtration system including a microporous membrane  
to produce a first permeate and a protein-enriched retentate, wherein the microporous  
membrane has a filtering surface with a contact angle of no more than about 30 degrees.
43. (New) The method of claim 42, wherein passing the extract through the  
filtration system comprises passing the extract through the filtration system under a  
transmembrane pressure of no more than 50 psig.
44. (New) The method of claim 42, wherein passing the extract through the  
filtration system comprises passing the extract through the filtration system at 55°C to  
60°C.
45. (New) The method of claim 42, further comprising diafiltering the  
protein-enriched retentate through the filtration system to produce a diafiltration retentate  
and a diafiltration permeate.
46. (New) The method of claim 42, wherein the aqueous solution has a pH of  
6.5 to 10.0.

Applicant : Michael A. Porter et al.  
Serial No. : 10/764,275  
Filed : January 23, 2004  
Page : 3 of 7

Attorney's Docket No.: 10790-  
067008 / CGL01/207US08

47. (New) The method of claim 42, wherein passing the extract through the filtration system comprises first passing an original volume of the extract through the filtration system while adding water to the extract in a feed tank so as to substantially maintain the original volume, and second passing the extract through the filtration system while allowing the retentate to be concentrated by a factor of at least 2.5 relative to the original volume.

48. (New) The method of claim 42, further comprising heating the retentate to at least 75°C for sufficient time to form a pasteurized retentate.

49. (New) The method of claim 42, wherein extracting oilseed material comprises extracting the oilseed material in a multistage operation which includes extracting the oilseed material in an initial extraction stage with an aqueous solution having a pH of 6.5 to 7.5 and extracting the oilseed material in a final extraction stage with an aqueous solution having a pH of 8.0 to 9.0.

50. (New) The method of claim 42, wherein extracting oilseed material comprises extracting the oilseed material in a multistage countercurrent operation which includes extracting the oilseed material at a pH of 6.5 to 7.5 in an initial extraction stage with a protein-rich liquor stream from a subsequent extraction stage; and extracting the oilseed material at a pH of 8.0 to 9.0 in a final extraction stage with an aqueous sodium hydroxide solution.

51. (New) The method of claim 42, wherein extracting oilseed material comprises extracting the oilseed material in a multistage countercurrent operation which includes extracting heating a protein-rich extract from a selected stage to as least about 75°C to form a heat-treated extract; and extracting oilseed material with the heat-treated extract in a different extraction stage.

Applicant : Michael A. Porter et al.  
 Serial No. : 10/764,275  
 Filed : January 23, 2004  
 Page : 4 of 7

Attorney's Docket No.: 10790-  
 067008 / CGL01/207US08

52. (New) The method of claim 51, wherein heating the protein-rich extract from the initial stage comprises heating a slurry of partially extracted oilseed material and the protein-rich extract.

53. (New) The method of claim 42, wherein the microporous membrane is an ultrafiltration membrane having an MWCO of about 25,000 to 500,000.

54. (New) The method of claim 42, wherein the microporous membrane has a pore size of 0.1  $\mu$  to 1.5  $\mu$ .

55. (New) The method of claim 42, wherein the membrane is a modified polyacrylonitrile membrane.

56. (New) The method of claim 42, wherein the membrane is designed for exposure to temperatures up to at least about 75°C, pHs ranging from about 2 to 11; and is capable of withstanding treatment with an oxidizing solution.

57. (New) The method of claim 42, wherein extracting oilseed material comprises extracting the oilseed material with the aqueous solution for no more than about 10 minutes.

58. (New) The method of claim 42, wherein the method comprises a continuous, multistage process with an apparent contact time of no more than 20 minutes.

59. (New) The method of claim 42, wherein the method comprises extracting soybean material at about 20°C to 60°C with an aqueous solution having a pH of 6.5 to 10 to from a mixture of particulate matter in an extract solution; removing at least a portion of the particulate matter from the mixture to form a clarified extract; and passing the clarified extract at 55°C to 60°C through the filtration system.

Applicant : Michael A. Porter et al.  
Serial No. : 10/764,275  
Filed : January 23, 2004  
Page : 5 of 7

Attorney's Docket No.: 10790-  
067008 / CGL01/207US08

60. (New) A modified oilseed material produced by a process which includes extracting oilseed material with an aqueous solution to form a suspension of particulate matter in an oilseed extract; and passing the extract through a filtration system including a microporous membrane to produce a permeate and a protein-enriched retentate, wherein the microporous membrane has a filtering surface with a contact angle of no more than about 30 degrees.

61. (New) The modified oilseed material of claim 60, wherein the process comprises extracting oilseed material at about 20°C to 75°C with an aqueous solution having a pH of 6.5 to 10.0 to form a mixture of particulate matter in an extract solution; removing at least a portion of the particulate matter from the mixture to form a clarified extract; and passing the clarified extract at about 55°C to 60°C through the filtration system, wherein the microporous membrane includes modified polyacrylonitrile.

62. (New) The method of claim 42, wherein the microporous membrane has a filtering surface with a contact angle of no more than about 25 degrees.

63. (New) The method of claim 42, wherein the microporous membrane has a filtering surface with a contact angle of no more than about 30 degrees.

64. (New) A method for producing a modified oilseed material comprising:  
extracting oilseed material with an aqueous solution to form a suspension of particulate matter in an oilseed extract;  
passing the extract through a filtration system to produce a first permeate and a protein-enriched retentate;  
diafiltering the protein-enriched retentate through the filtration system to produce a diafiltration retentate and a diafiltration permeate.

Applicant : Michael A. Porter et al.  
Serial No. : 10/764,275  
Filed : January 23, 2004  
Page : 6 of 7

Attorney's Docket No.: 10790-  
067008 / CGL01/207US08

65. (New) The method of claim 64, further comprising:  
combining the first permeate and the diafiltration permeate to form a combined  
permeate; and  
separating the combined permeate with a reverse osmosis membrane into an RO  
retentate and an RO permeate.